IWS STRONG

ABOVEGROUND TANKS

IWS INNOVATIVE WATER SYSTEMS

CREATED TO LAST

100% reusable PE material

Resistant to Nordic climate

Safe to maintain

Resistant to mechanical damage

The PE material's guaranteed lifetime is 50 years

Dear customer!

Thank you for taking time review our aboveground tanks catalogue!

Here you will find information on what size aboveground tank to choose and how to install it.

Our aboveground tank development process focuses mainly on long-term durability, ease of installation and safety of use.

STRONG aboveground tanks are made of strong double-wall PE (polyethylene) and they are used in various applications of industry, water treatment plants and agriculture.

STRONG tanks are intended for collecting and storing utility, waste and storm water, as well as various chemicals.

Detailed information about all our products is available at the address www.iwsgroup.ee/en.

CONTENT

PRODUCT RANGE

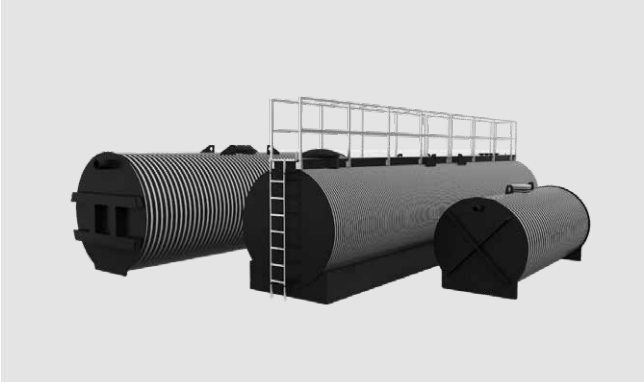
VERTICAL TANKS

Made of PE (polyethylene) material. The tank cylinder has double wall and is smooth on inside and outside.

ID 1000, 1200, 1400, 1600, 2000, 2200, 2400 mm

The tank's parameters are chosen according to needs:

- Capacity (diameter and height)
- Inflow and outflow connections
- Monitoring and maintenance covers
- Railings, ladders and service platforms
- Thermal isolation



HORIZONTAL TANKS

Made of PE (polyethylene) material. The tank cylinder has double wall and is smooth on inside and outside.

ID 1000, 1200, 1400, 1600, 2000, 2200, 2400 mm

The tank's parameters are chosen according to needs:

- Capacity (diameter and height)
- Inflow and outflow connections
- Monitoring and maintenance covers
- Railings, ladders and service platforms
- Thermal isolation

RECTANGULAR TANKS

Made of PE (polyethylene) or PP (polypropylene) material. The tank is made with single-wall sheets and is smooth.

The tank's parameters are chosen according to needs:

- Capacity (length, width and height)
- Wall thickness and design
- Inflow and outflow connections
- Monitoring and maintenance covers
- Railings
- Thermal isolation

SCRUBBERS

Made of PE (polyethylene) material. The tank cylinder has double wall and is smooth on inside and outside.

ID 500, 600, 700, 800, 1000, 1200, 1400, 1600, 2000, 2200, 2400 mm

The scrubber's parameters are chosen according to needs:

- Capacity (diameter and height)
- Inflow and outflow connections
- Monitoring and maintenance covers

TECHNICAL CHARACTERISTICS

STRONG aboveground tanks are made of PE-HD (high-density polyethylene), which is an elastic and durable type of plastic. Nowadays, PE is a common material used for manufacturing pumping stations, tanks, wells and pressure pipes, because it is particularly durable in Nordic climate. The tank cylinder of STRONG aboveground tanks made with ring stiffness of at least SN4 (4 kN/m²), so they resist mechanical damage that may occur when installing or using the system.

PHYSICAL CHARACTERISTICS

CHARACTERISTIC	UNIT	VALUE	STANDARD
Density	g/cm³	0,96	ASTM D1505
Melte Flow Rate (MFR)	g/10min	> 0,23	ISO 1133
Tensile Module	Mpa	900	ASTM D638
Temperature Resistance	°C	max +45	long-term
Temperature Resistance	°C	max +80	short-term

CHEMICAL CHARACTERISTICS

STRONG tanks are intended for collecting and storing utility, waste and storm water, as well as various chemicals.

Polyethylene is a material resistant to most chemicals.

The suitability of chemicals must be checked beforehand. The lifetime of the aboveground tank depends on the characteristics of the liquid being stored. Aboveground tanks for chemicals must be labeled with life expectancy, number of years and date.

TANKS FOR HAZARDOUS LIQUIDS

National requirements apply to tanks for hazardous liquids. The requirements covering the design, manufacture, inspection, documentation and installation of tanks.

Hazardous liquids are considered to by explosive, flammable, highly flammable, extremely flammable, toxic or very toxic liquids.

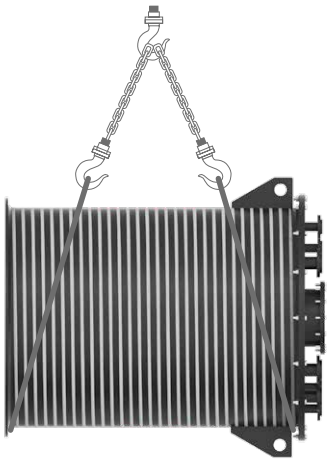
In case of hazardous liquids and chemically active substances, additional checks for the material's suitability are needed.

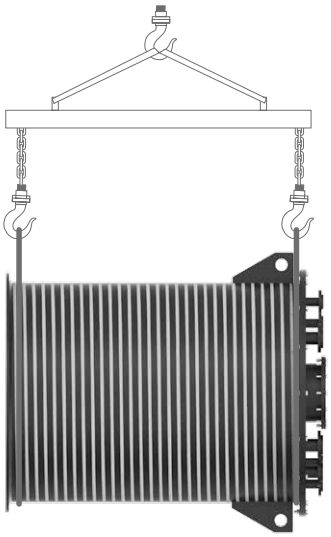
INSTALLATION

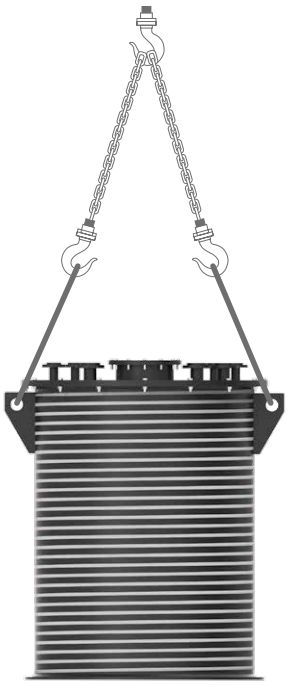
LIFTING OF TANKS

Use lifting straps to lift the tanks. There must always be at least two lifting points. Use a lifting beam if necessary. It is important that the lifting straps do not damage the projections of the tank.

Steel ropes and chains must not be placed around the tank. When lifting the tank use all available lifting eyes and guide ropes.





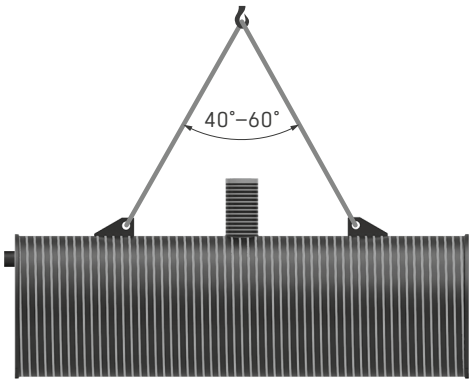


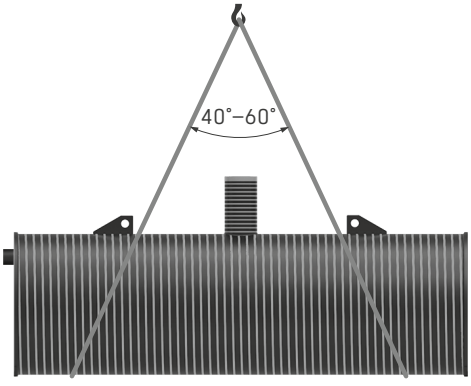
Lifting vertical tanks

INSTALLATION OF TANKS

The tank must be installed on a flat surface. The surface must be smooth and without bumps. A tolerance under the 2 meter measuring bar could be +/-4mm. The surface and its construction shall be strong enough to support the tank without being broken or punctured when filled. The tank anchoring to the surface or to the base plate shall be designed as required.

A tank's sideways deviation from the vertical must not be corrected with wedges between the base and the tank's bottom. The base of the tank must be smooth and without bumps.





Lifting horizontal tanks

MAINTENANCE

If there are no faults, we recommend performing visual inspections after every 3 months.

1. If the tank has closing devices, inspect their functioning. Close and open the valves once.
2. Wash the tank's inner surfaces with a pressurised water jet and clean its bottom of sediments. Depending on the tank's purpose and use, it may require regular cleaning at shorter or longer intervals.
3. Faulty elements must be repaired or replaced!

As a rule, the tank's cylinder and internal structures do not need any further maintenance.

Repairs of hazardous liquid tanks must take place pursuant to national requirements and must be duly documented.

SAFETY

1. The employer of the tank's maintenance personnel shall instruct the maintenance employees on the dangers of electric and toxic exhaust gases and shall provide the necessary protective equipment.
2. Before entering a tank, the tank must be ventilated!
3. Only one person at a time may stand on the tank's service ladder and the person must not carry along any items that are not lightweight and easy to use.
4. It is strictly prohibited to perform any works inside a tank alone!
5. Close all inflows into the tank for the duration of maintenance works!
6. Before the tank is put back into operation, it must be checked by qualified personnel that all the required safety rules have been fullfilled.
7. If safety requirements are ignored, no damage claims will be accepted.

WARRANTY

Innovative Water Systems undertakes the responsibility for the equipment's properties and for elimination of shortcomings becoming apparent during the equipment's use. The warranty terms stem from the legislation of the Republic of Estonia, and the warranty is first and foremost based on the manufacturers' warranties as long as they do not conflict with the laws of the Republic of Estonia. The warranty includes shortcomings of the equipment's or its individual elements' manufacture, materials or design.

1. General terms of warranty
1.1. The warranty is valid for 2 years i.e. 24 months in case of the product's purposeful use.
1.2. The warranty period starts from the product's handover date.

2. Warranty's validity terms
2.1. The prerequisite is the regulations in force and the installation and operation manuals required to be followed upon installation, use and maintenance of the equipment. The warranty will be valid if the equipment has been maintained regularly and used according to the manufacturer's instructions.
2.2. The warranty does not include damage caused to third parties because of a faulty product; it also does not include loss of revenue or any other similar loss.
2.3. In case of a fault becoming apparent, the equipment shall be repaired, not replaced as a whole.

3. The warranty does not include
3.1. training for installation, maintenance and use of the equipment;
3.2. repairs of transport damage and other mechanical damage (caused by vandalism, lightning, fire, etc.).

The warranty does not cover shortcomings caused by insufficient maintenance, incorrect installation and repairs, or normal wear. The warranty is also void if the equipment has been reconstructed.